

REBUTTAL TESTIMONY OF

JOHN R. HENDRIX

ON BEHALF OF

SOUTH CAROLINA ELECTRIC & GAS COMPANY

DOCKET NO. 2002-223-E

Q. PLEASE STATE YOUR NAME.

A. John R. Hendrix.

Q. HAVE YOU PREVIOUSLY TESTIFIED IN THESE PROCEEDINGS?

A. Yes, I have.

Q. WHAT IS THE PURPOSE OF YOUR REBUTTAL TESTIMONY?

A. The purpose of my rebuttal testimony is to respond to the testimony of intervenor witnesses Nicholas Phillips, Dennis Goins, Kevin Higgins, and James Herritage on matters regarding the Company's rate design, allocation of revenues proposed in this docket and the specifics of certain rates, rate components, and terms and conditions.

Q. WOULD IT BE APPROPRIATE TO RESET THE FUEL COST TO REFLECT THE TEST YEAR AVERAGE AS RECOMMENDED BY MR. HIGGINS?

A. No. In setting the base fuel rate, the Commission does not simply track past fuel costs. Instead, as the statute requires, it seeks to determine an appropriate level of future base fuel expense by looking at projections of future fuel costs. This requires the Commission to assess the projected cost of the various fuels used, the

1 cost of the transportation to bring the fuel to the plants, and also the likely fuel
2 mix based on projected demand and plant availability. In addition, the
3 Commission looks at any over or under recovery of fuel costs in the past period
4 and sets rates to recover or flow back the amounts involved. Accordingly, the
5 base amount of fuel costs in any particular period, standing alone, is not the basis
6 utilized by the Commission for determining the base fuel rate going forward.

7 **Q. WOULD YOU COMMENT ON WITNESS HIGGINS' CRITICISM OF**
8 **THE COMPANY'S REQUIRMENT FOR A DEPOSIT FROM NON-**
9 **RESIDENTIAL CUSTOMERS?**

10 **A.** The initial decision to request a customer deposit under the proposed terms and
11 conditions would be in the Company's sole discretion. This deposit request would
12 be made in the event that a Customer's credit deteriorated to a point where its
13 inability to pay may be imminent. However, the customer is fully protected
14 against arbitrary conduct by the Company. If the customer disagrees with the
15 Company's request for a deposit, the Customer has the right to seek immediate
16 relief from the Commission. Moreover, the Company is required to pay interest
17 on deposits. Currently that interest rate is 8%. This requirement acts as a
18 deterrent to collecting unneeded deposits, since the Company will pay a high cost
19 for funds deposited. In addition, the Company agrees with the recommendation of
20 Staff witness Watts regarding the waiver of a portion of Commission Regulation
21 103-333 (A), which restricts the payment of interest on customer deposits that are
22 held for 6 months or less. The recommendation would obligate the Company to

1 pay the established interest rate for all deposits collected under this provision,
2 regardless as to how long they are held.

3 The purpose of this proposed change in terms and conditions is to protect
4 the Company and, ultimately, the other customers who will end up absorbing
5 these kinds of revenue losses.

6 **Q. HAVE YOU REVIEWED THE RECOMMENDATIONS OF MR. HIGGINS**
7 **REGARDING THE DECLINING TAILBLOCK FOR RATE 20?**

8 **A.** Yes, I have. Mr. Higgins has recommended that a second kwh charge be added to
9 the rate so that all kwh over 75,000 would be priced at the Rate 23 energy charge.
10 This charge would be less than the charge for the first 75,000 kwh. Mr. Higgins
11 goes on to recommend that the rate be designed to be revenue neutral.

12 **Q. DO YOU HAVE ANY COMMENTS ON HIS PROPOSAL?**

13 **A.** Yes. The Rate 23 energy charge would not be appropriate to use in this case
14 because it was designed for a different customer class taking power at higher
15 voltage levels and with lower line losses. For this reason, the Rate 23 energy
16 charge should not be used because it would under-price the service compared to
17 the cost of providing it. Additionally, this proposal would have the effect of
18 further reducing the cost per kwh of the customers using more than 75,000 kwh
19 per month, while increasing the cost per kwh for customers using less than 75,000
20 kwh per month.

21 **Q. HAVE YOU REVIEWED THE RECOMMENDATIONS OF MR. HIGGINS**
22 **REGARDING THE REDESIGN OF RATE 21 AND MR. HERRITAGE'S**
23 **ASSERTION THAT RATE 21 HAS DESIGN FLAWS?**

1 **A.** Yes, I have.

2 **Q.** **DO YOU AGREE WITH THEIR ASSERTIONS THAT RATE 21 IS NOT**
3 **DESIGNED PROPERLY?**

4 **A.** No, I do not. Mr. Higgins and Mr. Herritage assert that Rate 21 does not
5 sufficiently reward high load-factor customers. Rate 21, however, is not intended
6 to reward customers with any particular load factor. Instead, it is intended to
7 encourage customers either to shift usage from on-peak to off-peak times or to
8 shed load from on-peak times. Customers that can do this create benefits to the
9 system as a whole by reducing the system peak demand and, therefore, avoiding
10 or postponing construction of additional generation. These system benefits justify
11 offering these customers savings on their service.

12 High load-factor customers that select Rate 21 receive benefits only if they
13 shift or shed load from on-peak periods and thereby create benefits to the system.
14 Those that do not shift or shed load from on-peak periods do not receive benefits
15 under the rate. This is precisely the result that the rate is designed to produce.

16 It is not surprising that high load factor customers may have difficulty in
17 receiving benefits under Rate 21. High load factor customers are already utilizing
18 their demand at or near its full potential. Accordingly, it is more difficult for such
19 customers to shift load to off peak periods. However, if load shedding or shifting
20 is possible for these customers they can benefit from Rate21.

21 **Q.** **PLEASE EXPLAIN THE DESIGN OF SCE&G'S MEDIUM AND LARGE**
22 **GENERAL SERVICE RATES AS THEY RELATE TO LOAD FACTOR.**

1 **A.** All of the rates for medium and large general service customers provide high load
2 factor customers with proper price signals. All these rates are designed with a
3 demand charge and an energy charge. For higher load factor customers, the fixed
4 demand charges are spread over more kwhs, resulting in a lower cost per kwh. If
5 load factor decreases, however, less kwhs are used, and the overall cost per kwh
6 goes up.

7 For example, a customer on the proposed Rate 20 using 500 KVA per
8 month with a 50% load factor will pay 6.6 cents per kwh. That same customer
9 with a 100% load factor will pay 4.7 cents per kwh. As you can see, customers
10 with higher load factors are receiving an appropriately reduced cost per kwh. All
11 of our medium and large rates are designed in this manner, including Rate 21.

12 **Q. SHOULD HIGH LOAD FACTOR CUSTOMERS RECEIVE AN**
13 **ADDITIONAL REDUCTION IN THEIR COST PER KWH AS**
14 **SUGGESTED BY MR. HIGGINS AND MR. HERRITAGE?**

15 **A.** No. We have designed our Medium General Service Rates and Large General
16 Service Rates using properly allocated fixed costs in the demand charges and
17 properly allocated variable costs in the energy charges. As a result, customers
18 receive proper price signals that encourage higher load factors. I am aware of no
19 reason to provide these customers an additional reduction in price.

20 **Q. HAVE YOU REVIEWED MR. HIGGINS'S EXHIBIT NO. _____(KCH-5)?**

21 **A.** Yes, I have. Mr. Higgins asserts that a 100% load factor customer using 500 KVA
22 per month will pay 6.7% more on the current rate 21 versus the current rate 20
23 and 7.3% more on the proposed rate 21 versus the proposed rate 20. I have

1 discovered some errors in his calculation. My calculations show 2.78% and
2 3.15%, respectively. Please see my Exhibit No._____(JRH-6). Based on the rate
3 schedule, Mr. Higgins appears to have applied more kwhs to the on-peak periods
4 than there were hours available under the tariff and appears to have added the
5 basic facility charge in his calculations twice.

6 **Q. MR. HERRITAGE STATES THAT RATE 21 DISCOURAGES HIGH**
7 **LOAD FACTOR CUSTOMERS FROM SWITCHING TO TIME OF USE.**
8 **IS THIS TRUE?**

9 **A.** No. But more to the point, Mr. Herritage misconstrues the purpose of Rate 21.
10 Rate 21 benefits customers who can shift on-peak load to off-peak periods or shed
11 on-peak load. By doing so, these customers can save money. High load-factor
12 customers that can shift or shed load from peak periods can benefit from Rate 21
13 just the same as other customers. However, as stated above, it may be more
14 difficult for a high load factor customer to shift load since they are already
15 optimizing their demand across all hours. Accordingly, these customers may
16 receive greater benefits by remaining on other rates.

17 Mr. Herritage also seems to believe that a transfer by a customer from
18 Rate 20 to Rate 21 should be revenue neutral. Revenue neutrality is admirable in
19 principle. But it would be impossible to design Rate 21 to be revenue neutral for
20 each Rate 20 customers. If it were revenue neutral for some, then others would
21 pay more and still others would pay less.

22 It must be remembered that Rate 21 is an optional rate, and only the
23 customers who would see a benefit from switching to it would do so. In the

1 revenue neutral scenario, certain “lucky” customers would be in a position to
2 receive a windfall by shifting to Rate 21. They would receive a rate decrease with
3 no corresponding benefit to the system. The lost revenue would then need to be
4 collected from other customers. Accordingly, these ‘free riders’ would receive
5 unmerited rate reductions at the expense of others.

6 For this reason, we have not designed Rate 21 to be revenue neutral, but
7 to have a slightly higher rate for customers that do not shift or shed load. This
8 differential reasonably limits free riders on the rate, and ensures that only
9 customers able to create substantial benefits for the system shift to Rate 21.

10 **Q. A NUMBER OF INTERVENORS HAVE QUESTIONED THE FAIRNESS**
11 **OF THE COMPANY’S ALLOCATION OF ITS REQUESTED RATE**
12 **INCREASE TO VARIOUS CLASSES OF CUSTOMERS. WILL YOU**
13 **PLEASE REVIEW WITH THE COMMISSION THE PROCESS YOU**
14 **FOLLOW IN ARRIVING AT THESE ALLOCATIONS?**

15 **A.** Yes. At the outset, I would note that no intervenor has challenged the validity of
16 the Company’s cost of service study. The criticisms stem from the impact of the
17 revenue increases on a particular class vis-à-vis the allocation to other classes. It
18 is essentially a fairness argument. The complaint by one is that it is not being
19 fairly treated when compared to others.

20 The rate-making process begins with a properly allocated cost of service
21 study from which we ascertain our total revenue requirement and the percent by
22 which our revenues must increase to meet this requirement. For ease of analysis,
23 assume that the Company requires a 9% overall rate of return and this equates to

1 an overall 10% revenue increase. If we then increased the rates for each class of
2 customers so that the return of each class equals 9%, we would realize our total
3 revenue requirement and each class would be paying its exact cost to serve.
4 While from a pure academic standpoint this solution has symmetry, the
5 circumstances of our customers are much more dynamic, and the relationship of
6 customers cannot be maintained so easily. So, the next step in our process is to
7 allocate the new revenue requirement across all classes of customers in a way that
8 is fair and equitable.

9 In the allocation process, we consider a number of factors. One of the
10 factors we consider is cost causation. For example, since the Company's last rate
11 case, the peak demand for Medium General Service and Small General Service
12 grew at a faster pace than the overall peak demand. This means that these two
13 classes are adding costs to the system at a higher rate than the other classes.

14 Other factors considered are price sensitivity and elasticity, public policy
15 objectives and, importantly, the trend in shifting of rate of return ratios. By the
16 last I mean the shifts in the ratios of the class rate of return to the total return since
17 the last rate case. For example, a particular class of customer may produce a
18 return ratio to the total of 92% rather than the 100% it would have been allocated
19 if the increases had been applied as I just described. However in the intervening
20 time between rate cases, that ratio, because of the dynamics of the consuming
21 market, may change significantly by the time of the next rate case. In the present
22 case, when we reviewed the rate of return ratios since they were set in our last rate
23 case, we found that the Residential class had gone from 92% to 100%; Small

1 General Service went from 108% to 92%; Medium General Service went from
2 106% to 101%; Large General Service stayed the same at 109%; and Lighting
3 went from 100% to 96%. Therefore, assuming reasonably that these trends in
4 shifts will continue, we have set the returns in this case so that each of the
5 customer classes can move toward 100% until the next time rates are revisited. It
6 would be inappropriate to set them in a way which would permit disparities to
7 grow during the intervening time frame.

8 Taking all of these factors into consideration and using the cost of
9 service as the foundation, we developed our proposed spread of the revenue
10 increase. Throughout this process and as a final check on the reasonableness of
11 the revenue spread, we adhered to a basic premise that rates should produce
12 revenues and, in turn, rates of return by class that bear a reasonable relationship to
13 the overall rate of return. The Company has historically considered a
14 “reasonable” relationship to be within 10% plus or minus of the overall return.
15 This basic principle has been used by the Company and approved by the
16 Commission for many years. Our proposed revenue spread puts all classes of
17 customers within this band of reasonableness.

18 **Q. WHY SHOULD THE COMMISSION CONSIDER VARIOUS FACTORS**
19 **IN ESTABLISHING THE ALLOCATION OF THE REVENUE**
20 **INCREASE?**

21 **A.** From a public policy perspective, it is important for the Commission to have the
22 flexibility to consider many factors in allocating revenue increases to classes
23 while still adhering to the long standing regulatory principal of setting rates that

1 produce revenues and, in turn, rates of return by class that bear a reasonable
2 relationship to the overall return. We believe the 10% bandwidth is reasonable
3 and is consistent with past Commission decisions. If the Commission were to
4 adopt a more rigid or formulistic approach, the flexibility to take public policy
5 issues into consideration might well be compromised.

6 **Q. DO YOU AGREE WITH DR. GOINS' RECOMMENDATIONS AS TO**
7 **THE SETTING OF THE INTERRUPTIBLE CREDIT?**

8 **A.** No. The Company believes that the credit is set at an appropriate level.

9 **Q. WHAT IS THE RATIONALE BEHIND YOUR ASSERTION THAT THE**
10 **INTERRUPTIBLE CREDIT IS SET AT AN APPROPRIATE LEVEL.**

11 **A.** The Company examined the carrying cost of an internal combustion turbine (ICT)
12 because this is the generation which we avoid by being able to interrupt
13 customers. The Company developed a range of carrying charges from a high of
14 \$6.13 to a low of \$3.71. Then we discounted the carry charges for restrictions
15 within our rider that relate the value of our interruptible customers to the cost of
16 an ICT.

17 Based on the option chosen by the customer, the annual interruptible hours
18 are 150 or 300. A turbine would be available 8,760 hours annually (minus a few
19 hours for maintenance). Another way to look at this is that these customers are
20 only partially interruptible. They are firm for 8,610 or 8,460 hours annually
21 depending on the option chosen.

22 Secondly, the rider has a limited number of exposure hours and days
23 where a customer can be interrupted based on the time of year. For the months of

1 November through April, the exposure hours are 6:00 am-12:00 pm, Monday
2 through Friday and for the months of May through October, the exposure hours
3 are 1:00 pm through 9:00 pm, Monday through Friday. All of these times exclude
4 holidays. A turbine is available all hours and all days. Thirdly, in the interruptible
5 rider there is a minimum curtailment notification of four hours except during
6 system emergencies where there is a 10 minute notice. An ICT can be brought up
7 almost instantly as demand requires.

8 After looking at all of these factors and adjusting the carrying costs for
9 them, we believe that credits are set at a reasonable level.

10 **Q. ARE THE INTERRUPTIBLE CUSTOMERS PAYING FOR THE FIXED**
11 **COSTS OF THE SYSTEM?**

12 **A.** No, they are not. The amount they are paying is a value of service payment, which
13 we feel is appropriate based on my discussion of the credit value above. That
14 value of service payment is credited against the revenue requirement of all the
15 firm retail customers to compensate them for allowing the interruptible customers
16 to use the capacity for at least 8,610 or 8,460 hours annually depending on the
17 option chosen.

18 **Q. DOES THIS COMPLETE YOUR REBUTTAL TESTIMONY?**

19 **A.** Yes it does.